



DOT-E 5749 (SEVENTH REVISION)

EXPIRATION DATE: January 31, 2003

(FOR RENEWAL, SEE 49 CFR § 107.109)

- E. I. du Pont de Nemours and Company 1. GRANTEE: Wilmington, Delaware
- 2. PURPOSE AND LIMITATION: This exemption authorizes the transportation in commerce of a 60-percent tetrafluorethylene - 40-percent hydrogen chloride gas mixture classed as a Division 2.3 material in an insulated nickel-steel DOT Specification MC-331 cargo tank. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
- 3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
- REGULATIONS FROM WHICH EXEMPTED: 49 CFR \$ 173.315(a), 4. Notes 22 and 25, except as prescribed herein.
- 5. BASIS: This exemption is based on the application of E. I. du Pont de Nemours and Company dated December 27, 2000, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Compressed gas, toxic, flammable, n.o.s 60- percent tetrafluoroethylene - 40-percent hydrogen chloride gas mixture	2.3	UN1953	Hazard Zone B

7. SAFETY CONTROL MEASURES:

- a. <u>PACKAGING</u> Two packagings are authorized as prescribed in paragraphs (1) and (2) below:
 - (1) Packaging prescribed is an insulated nickel-steel DOT Specification MC 331 cargo tank as described on Lubbock Manufacturing Company's Drawing STR-716-A, TR-1609 (both with design pressure of 250 psig) except that liquid discharge openings are fitted with valves manufactured by ORBIT Valve Company or ITT instead of Hill-McCanna Division as shown on above drawing. Liquid discharge opening must be less than 1-1/4 inches diameter as specified in § 178.337-11(c). ORBIT Manufacturing Company valves or ITT valves may also be applied to other discharge openings on the trailers instead of Hill-McCanna Division valves shown on above drawings. Also, there must be means to determine that the ORBIT valve is closed. Instructions must be permanently marked on the vehicle in the valve cabinet area to instruct the driver and other interested persons how to check on the valve closure. The reverse buckling rupture disc safety valve assembly must contain a screen designed and located to prevent fragments of the disc clogging the valve; and the space between the disc and the valve must be checked for pressure build-up each time the tank is loaded.

Permissible modifications to drawings include:

- (i) installation of a catwalk around outside of manway protective housing with access ladder to catwalk;
- (ii) installation of a lightweight manway protective housing cover which retains original provision for safety valve discharge venting;
- (iii) telltale device to verify integrity of rupture disc below safety valve;
- (iv) replacement of original bolts and studs that may be susceptible to stress corrosion with alloy steel (ASTM 193 B7 OR B7M and ASTM A320 Grade 17M), Monel (ASTM F-468) or Inconel (AMS-5664A) bolts and studs;
- (v) replacement of carbon steel emergency cover rings at tank bottom outlet flanged fittings with Inconel emergency cover rings to eliminate corrosion of these rings;
- (vi) replacement of welded steel sheet metal bottom of the piping guard cabinet with Inconel edged fiberglass panels which are removable to provide open access to the trailer's operating valves under emergency conditions. The piping guard cabinet must meet the requirements of § 178.337-10;
- (vii) installation of storage cabinet on trailer to store emergency capping kit equipment; and
- (viii) modification of manhole dome protective housing to accommodate an emergency capping equipment yoke. The manhole dome protective housing must meet the requirements of \$\$ 178.337-10(a) and (b).

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(2) Packaging prescribed is an insulated nickel-steel DOT Specification MC 331 cargo tank as described on Keehn Service Corporation's drawings D-230, D-231 and D-234 (design pressure of 450 psig).

Permissible modifications to the drawings include those for package (1) as long as all changes comply with DOT Specification MC 331 cargo tanks and any requirements specific to the 60-percent tetrafluoroethylene - 40-percent hydrogen chloride gas mixture.

b. <u>TESTING</u> - Tanks must be tested to 1-1/2 times the service (design) pressure before being placed in service. Each cargo tank must be reinspected and retested once every 2 years in accordance with § 180.407(c) as prescribed for DOT Specification MC-331 cargo tanks.

c. OPERATIONAL CONTROLS -

- (1) Material is loaded at -40°F. Tanks must be filled by weight. Maximum filling density is 105%.
- (2) The maximum hauling time is calculated as follows: Max. Hauling Time = [Holding Time 24 hours] ÷ 2. Holding times and hauling times for tanks are as follows:

Tank Design Pressure	Holding Time	Hauling Time
250 psig	105 hours	40.5 hours
450 psig	207 hours	91.5 hours

- (3) Before transportation in an empty condition, each tank must be free of liquid content. In addition, the vapor pressure must be so reduced as to avoid the possibility of venting en route.
- (4) Drivers must have been instructed as to necessary safeguards and proper procedure in the event of unusual delay, fire, or accident.

8. <u>SPECIAL PROVISIONS</u>:

- a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.
- b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.
- c. MARKING Each cargo tank must be plainly marked on the right side near the front, in letters at least 2-inches high on a contrasting background, "DOT-E 5749."
- 9. MODES_OF_TRANSPORTATION_AUTHORIZED: Motor vehicle.
- 10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each motor vehicle used to transport packages covered by this exemption.
- 11. <u>COMPLIANCE</u>: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 <u>et seq</u>:
 - o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Registration required by \$ 107.601 et seg., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:

Robert A. McGuire

Associate Administrator

for Hazardous Materials Safety

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(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.

Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

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